

neighbouring species *O. cottoni* of the Guas n'gishu plateau, but differs from that animal in the more backward inclination of the horns, in this respect resembling *O. montana*.

The hair is of a brighter and richer shade than that of *cottoni*, and differs totally from the grizzled fawn of *montana*. Its wavy texture is not unlike that of a reedbuck. The hair on the body is from 30–40 mm. in length, whereas other oribis have hair of an average length of 20 mm. and not exceeding 30 mm.

The hoofs of this species are larger than those of either *cottoni* or *montana*. Unfortunately no accurate body-measurements could be taken.

XII.—A Revision of the Asilidæ of Australasia.

By GERTRUDE RICARDO.

[Continued from vol. x. p. 360.]

SINCE the last part of this paper was published in the 'Annals' in September 1912, Dr. Hermann, of Erlangen, has sent me his monograph on the Laphrinæ of South America, in which, however, he includes some species from the Australasian Region. The monograph was published apparently in the early part of last year, so that the names of his new species will have priority over mine. The title of the work is "Beiträge zur Kenntnis der Südamerikanischen Dipterenfauna," published in Nova Acta Abh. der kaiserl. Leop.-Carol. Deutschen Akademie der Naturforscher, Band xcvi. Nr. 1.

He forms four new genera for species from Australia and New Guinea (see p. 205), viz. *Cenochromyia*, *Epaphroditus*, *Adelodus*, and *Cyanonedys*.

Cenochromyia comprises two new species only, from New Guinea—*C. xanthogaster* and *C. guttata* (p. 115). *Epaphroditus* comprises *Laphria placens*, Wlk., from New Guinea (p. 118). *Adelodus* (p. 124) comprises two new species from Queensland and New South Wales, *A. rufipes* and *A. nigrocæruleus*; I have seen no examples of these.

Cyanonedys comprises three new species which I had placed in the genus *Clariola* (see 'Annals,' Sept. 1912, p. 357), viz. *Cyanonedys leucura* (p. 133: my *Clariola nigrescens*); *Cyanonedys lugubris* (p. 132: my *Clariola aureafacies*); *Cyanonedys hornii* (p. 133: my *Clariola albohirta*).

ATOMOSIA, Macquart.

Dipt. Exot. i. p. 73 (1833).

Formed for species from America. No Australian species has been described as belonging to this genus so far, though one from New Guinea described by Walker under *Laphria* is placed here by v. d. Wulp; but a new species from Victoria appears to belong to this genus. I compared it with the type of *Atomosia affinis*, Macq., from Brazil, in the Paris Museum, and it appeared to agree with it in generic characters.

The genus belongs to the group with no curved spine on fore tibiæ, and has the cross-veins closing the discal and fourth posterior cells parallel.

Atomosia australis, ♂ ♀, sp. n.

Types from Dandenong Ranges, Victoria.

A small blue-black species, with white-haired tibiæ. *Wings* shaded on the cross-veins.

Length 9 mm. (♂), 8 mm. (♀).

Face with grey tomentum, brown in centre below the antennæ; no tubercle present; moustache consists of rather long, weak, black hairs, reaching entirely over face as far as the antennæ; one or two white hairs near the mouth (♀); in the ♂ the face is more widely brown and the moustache consists of long yellow hairs below and black above. *Antennæ* black, the first joint quite twice as long as the second, which is small, the third about one and a half times as long as the first two, with no end-bristle, the first two joints with black pubescence; back of head with long black hairs, beard and pubescence on lower part of head white. *Thorax* brownish, with short fulvous pubescence; *scutellum* similar, with long weak bristles posteriorly. *Abdomen* blue-black, shining, the same width throughout, finely punctuate; sides and apex with fine white pubescence; underside brown; some black bristles at apex of abdomen. The male has the abdomen somewhat darker, the genital organs distinctly visible on the underside. *Legs* black, coxæ reddish brown, the femora with white hairs below, the tibiæ covered with white pubescence on the upper side and with black bristles on each border, the tarsi with black bristles and pubescence. *Wings* clouded with brown on the cross-veins; the anterior branch of third vein curved; the subcostal cell closed in a point, the first posterior and discal cell narrow, the second and third wide, the fourth closed, the cross-vein closing it is

a little *below* the one which closes the discal cell ; the second and third posterior cells are exactly above the discal and fourth posterior cell. Halteres yellow.

Aphestia chalybæa, Röder.

Stett. ent. Zeit. xlii. p. 356 (1881).

The type (a male) was described from Peak Downs, Australia ; no specimen in Brit. Mus. Coll. or Mr. French's Coll. The genus is distinguished by the long third joint of *antennæ* and by the transverse veins closing the discal and fourth posterior cell being in a line. Röder describes his species as black. *Face* with white moustache and beard. *Abdomen* copper-coloured at base, steel-blue shining on posterior borders with white hairs ; the remaining segments shining copper-coloured. *Legs* steel-blue.

Length 7 lines.

Dr. Hermann suggests that this species may belong to his new genus *Adelodus* : see his remark, p. 125.

NUSA, Walker.

Dipt. Saund. i. p. 105 (1851).

Andrenosoma, Rond. Dipt. Ital. Prodrôme, i. p. 160 (1856).

Elacotoma, A. Costa, Atti R. Accad. Napoli, i. p. 49 (1863).

This genus is distinguished from *Laphria* by the closed or almost closed first posterior cell of *wing*. *Abdomen* more or less bare.

The only species recorded from Australia is *Nusa tectamus*, Walker.

Nusa tectamus, Walker.

List Dipt. ii. p. 374 [*Laphria*] (1849), et vii. Suppl. 3, p. 559 (1855) ;

Kertész, Cat. Dipt. p. 195 [*Laphria*] (1909).

Andrenosoma vidua, Bigot, Ann. Soc. Ent. France, (5) viii. p. 228 (1878).

Type (♀) from Port Essington, Arnhem Land, N. Australia (purchased from Mr. Gould), and a long series of males and females from Queensland (*Bancroft* and *Dodd*), and one male from Victoria. Mr. Froggatt records it from Queensland.

A large blue-black species with grey pubescence on *thorax* and base of *abdomen* and on *legs*. *Wings* clear, the first posterior cell closed at border.

Length 22–25 mm.

Male.—*Face* covered with dirty grey tomentum, silvery white at sides, and with long dirty grey hairs ; the tubercle,

which is large and takes up the greater part of face, is shining black in the middle and carries the moustache composed of long black bristles. *Palpi* blackish, with black bristly hairs. Beard whitish. Proboscis at base with long whitish pubescence. *Antennæ* blackish, the first joint two-thirds the length of the third joint, with white hairs and one long reddish-brown bristle at its apex; the second very short, not half the length of the first, with a long black bristle on each side; the third rather broad and flat, with no style. *Forehead* and hind part of head with whitish pubescence. *Thorax* blackish brown, with grey tomentum on shoulders and continued as stripes median and lateral; the pubescence on dorsum short, chiefly greyish, sides with longer hairs and with three or more black bristles above the base of wings and three weaker ones beyond; breast-sides with chiefly long greyish pubescence. *Scutellum* with grey tomentum and pubescence.

Abdomen metallic blue-black, the first two segments covered with long grey pubescence, which, however, does not attain the posterior border of second segment; the other segments bare; the anus with black hairs; sides of abdomen with two black bristles on the first segment and one each on the following four segments; underside with long pubescence black, except at the base, where it is greyish. *Legs* blue-black, with long greyish hairs on the femora and tibiæ, the tarsi armed with black bristles and a few bristly hairs; the posterior femora incrassate, with some stout black bristles on the apical half, the middle femora with two at the apex. *Wings* clear, veins brown, slightly shaded; the first posterior cell closed at border (in one male from Queensland it is almost open at the border and there is an appendix present); fourth and fifth posterior cells closed, the small transverse vein situated on the basal third of the discal cell.

Female is similar, but the pubescence at base of *abdomen* and on *legs* is much less, and on the hind femora, which are not so incrassate, it is largely black; the ovipositor long and pointed.

Andrenosoma vidua, Bigot, appears to me from the description to be identical with this species.

Maira, Schiner.

Verh. zool.-bot. Ges. Wien, xvi. p. 673 (1866).

This genus comprises blue-black metallic species with swollen hind femora, and all the legs, especially in the males,

with long pubescence; the head orbicular and much excised behind; the moustache confined, or almost so, to oral opening. The genus is chiefly confined to the Oriental and the Australasian Regions, but so far only three species have been described from Australia, Tasmania, and New Zealand.

The synonymy of some of the species is in the greatest confusion, largely owing to the difficulty of identifying Walker's species from his descriptions. Below is given what appears to be the correct synonymy for a few of the Walker species from the Australasian Region (Australia and New Zealand excepted) from examination of the types, but little can be done till the genus is thoroughly monographed. The species recorded from Australia and New Zealand are only two:—

Maira aenea, Fabr., Syst. Antl. p. 161 [*Laphria*] (1805). See Kertész's Cat. for full references.

Maira auribarbis, Macq., Dipt. Exot. Suppl. 3, p. 182 (1847), et Suppl. 4, p. 375 (♀) (1849).—*Lophria consobrina*, Proc. Linn. Soc. London, iii. p. 84 (1859); Bigot, Ann. Soc. Ent. France, (5) viii. p. 218 (1878); Kirby, Ann. & Mag. Nat. Hist. (5) xiii. p. 459 (1884).

Maira aenea, Fabr.

A species widely distributed, recorded from New Zealand. No specimens from there or from Australia are in the Brit. Mus. Coll. or Mr. French's Coll. *Laphria comes* ♂ ♀, *censors* ♂, and *replens* ♀, Walker (this latter is *not* a synonym of *Macra spectabilis*, Guérin, as given in Kertész's Cat.), are probably synonyms of this species.

There is one male in Brit. Mus. Coll. from New Hebrides.

Maira auribarbis, Macquart.

Laphria consobrina, Walker.

The male type was described from Java, and later Macquart recorded a female from Australia.

The type is apparently lost.

Macquart placed it under *Lumpria*, a genus confined to the American continent, with spines on underside of hind femora; in Kertész's Cat. it is placed under this genus.

In Brit. Mus. Coll.:—Walker's type (♀) from Waigiou (not Aru Islands), and other specimens from New Hebrides, New Guinea, Aru Islands, and a male and female from Queensland.

From Macquart's description this species is probably the same.

Macquart described his species thus :—Violet. Moustache and beard golden-coloured. Legs with yellow hairs. Wings half brown and half hyaline.

Length $6\frac{1}{2}$ lines. ♂.

Related to *L. aenea*. Palpi black, with black hairs. Face and moustache golden-coloured, with long black bristles. Forehead with grey tomentum. Antennæ black, the first joint with yellow hairs and black ones below. Thorax with shoulders and sides golden tomentose. Abdomen without spots or segmentations. Legs black, with violet reflections; femora and tibiæ with long yellow hairs. Wings: the anterior half hyaline, posterior half blackish brown; neuration as in *L. aenea*.

From Java, my collection (Suppl. iii. p. 182).

Male has been described. A female is placed with it, which differs as follows :—Posterior femora less incrassate; tibiæ with much fewer long hairs. Wings brownish, a little paler towards the base. The first transverse vein is situated on the third instead of the quarter of the discal cell. It comes from New South Wales, whilst the male is described from Java (Suppl. iv. p. 375).

The *face* in Walker's species is bright golden yellow, with the same coloured hairs above tubercle, which latter is blackish with grey tomentum; the moustache composed of eight long black bristles, the golden-yellow hairs intermixed with them; the second, third, and fourth segments of *abdomen* have traces of white spots, and underside has white segmentations. *Wings* clear at base and on fore border as far as stigma; elsewhere brownish.

Length 17 mm.

The other specimens vary somewhat in colouring of *wing*; one specimen from Amboyna has them entirely hyaline and they vary in size from 12–22 mm.

Maira gloriosa, Walker.

Proc. Linn. Soc. London, iii. p. 84 [*Laphria*] (1859).

Maira kollari, v. d. Wulp, nec Dol. Tijds. v. Entom. (2) vii. (xv.) p. 201 (1872).

? *Maira spectabilis*, Schiner (nec Guérin), Verh. zool.-bot. Ges. Wien, xvii. p. 381 (1867).

Type (♀) from Aru Island and two males from same locality, either of which may be the type.

A specimen from Key Island is labelled "*gloriosa*," but as the abdomen is covered with short golden pubescence, as in *M. paradisiaca*, Wlk., I conclude the labels have got transposed. The three typical specimens have the abdomen bare, shining, purple and green metallic.

Maira spectabilis, Guérin.

Laphria congrua, ♂, Walker.
Laphria consurgens, ♀, Walker.
Laphria socia, ♀, Walker.

These types all appear to be synonyms of the above.

Laphria cærulea, Boisduval, the female type, also labelled *L. iodisoma*, was seen by me in the Paris Museum, and appears to me to be the same as *M. spectabilis*; it is a large species, measuring 23 mm. Moustache of long black hairs, with some yellow ones below intermixed, and yellow hairs on face. *Antennæ* black, the third joint destroyed. *Thorax* dull blackish, with white spots on shoulders. *Abdomen* and *legs* metallic blue, the latter with long white hairs on all the femora and tibiæ, apices of latter with some black ones and the tarsi with long black hairs. *Wings* tinged brown, the fourth posterior and anal cell closed, the first posterior wide open.

Maira paradisiaca, Walker.

Proc. Linn. Soc. London, iii. p. 128 [*Laphria*] (1859).

Type (♂) from Key Island.

The species described by v. d. Wulp as *M. tomentosa* must be very near this species, if not the same.

To the Walker species under *Maira* in Kertész's Cat. the following should be added:—

Laphria setipes, from Gilolo.

Laphria conveniens, from Batjan and Gilolo.

Laphria flagellata, from Gilolo.

LAPHRIA, Meigen.

Illiger's Magazine f. Ins. ii. p. 270 (1803)

This genus is distinguished from *Maira*, Schiner, by the thicker moustache, which is not confined to the oral opening, but extends upwards; face usually with a tubercle. The character of the head being not or only very slightly excised behind seems rather a doubtful one; indeed authors, v. d. Wulp in particular, seem to differ as to the characters of *Maira*, which was divided off from *Laphria*.

The following species of *Laphria* in *sensu stricto* are recorded from Australia and Tasmania:—

Laphria telecles, Walker, List Dipt. ii. p. 374 (1849), et vii. Suppl. 3, 559 (1855).

Laphria rufifemorata, Macq., Dipt. Exot. Suppl. 1, p. 201, pl. vii. fig. 16 (1846).

Laphria fulviceps, Macq., l. c. Suppl. 4, p. 376, pl. vii. fig. 5 (? New Holland) (1849).

- Laphria ornatipennis*, Macq., *l. c.* p. 377, pl. vii. fig. 4.
Laphria niveifacies, Macq., *l. c.* p. 377, pl. vii. fig. 5; v. d. Wulp,
 Sumatra Exped. Dipt. p. 231 (1881); Kertesz, Cat. Dipt. p. 203
 (1909) [*Maira*].
Laphria flavifemorata, Macq., *l. c.* p. 377, pl. vii. fig. 5.
Laphria calopogon, Bigot, Ann. Soc. Ent. France, (5) viii. p. 226 (1878).
Laphria bancrofti, sp. n.
Laphria fulvipes, sp. n.
Laphria hirta, sp. n.

1. Legs wholly black. Wings yellow, with dark apex and spots. *ornatipennis*, Macq.
 Legs violet. Wings brownish, but with no dark apex or spots *niveifacies*, Macq.
2. Legs black and yellowish or red 3.
3. Abdomen bluish black, usually with white lateral spots 4.
 Abdomen black, with fulvous lateral spots 6.
 Abdomen bluish black, the apex reddish yellow. 7.
4. Legs black, posterior femora yellow *telecles*, Wlk.
 Legs black, all femora and tibiæ yellow at base. *fulvipes*, sp. n.
 Legs black, all femora more or less yellow 5.
5. Wings clear. Small species. Moustache black. No white spots visible on abdomen *flavifemorata*, Macq.
 Wings brownish. Larger species. Moustache black and white. Abdominal white spots present *rufifemorata*, Macq.
6. Legs black, middle and posterior femora and all tibiæ yellow *hirta*, sp. n.
7. Legs black, femora and tibiæ reddish yellow at base *bancrofti*, sp. n.

Laphria telecles, Walker.

Types (♂ ♀) from W. Australia and another male from New South Wales.

A species distinguished by the yellow swollen posterior femora, with a blue-black shining *abdomen*, with white lateral spots on the second, third, and fourth segments; pubescence on them and on sides white and dense; underside blue-black, with white pubescence. The *face* is black, with a black moustache on the tubercle and dense silvery white hairs above reaching *antennæ*, the first two joints of which have black pubescence. *Palpi* with black hairs. Beard white. *Legs* blackish, with dense white pubescence, thickest on the anterior and middle pair; some black hairs intermixed, and wholly black on tarsi. *Wings* brownish, paler at base; veins brown; the *neurination* as in *L. rufifemorata*.

Length, ♂ 19 mm., ♀ 13 mm.

Laphria rufifemorata, Macquart.

Type (♀) seen in Paris Museum, 12. 4. 11.

In Brit. Mus. Coll. are three females from Tasmania,

others from S. Australia (*Bakewell*) and Victoria; and in Mr. French's Coll. from Dandenong Ranges, Victoria.

Macquart omitted any mention of the white spots on abdomen.

A medium-sized black species, with blue-black *abdomen* marked with white spots. *Legs* black; femora yellow, the posterior pair much swollen and curved. *Wings* brownish.

Length, ♂ 13-16 mm., ♀ 9-17 mm.

Face black, with large prominent tubercle on lower part, some grey tomentum near eyes and under antennæ. Moustache of long black bristles on tubercle; above this some fine white or yellow hairs reaching to the antennæ. Beard of white silky hairs. *Forehead* black, with black pubescence, the hairs round the head black. *Antennæ* black, the first joint long, the second one very short, both with long black hairs; the third longer than the first two together, with no bristle at apex, nearly the same width throughout. *Thorax* blue-black, with silvery white tomentose shoulder-spots; pubescence black, even on the spots; sides of breast with silvery white tomentum and long white pubescence, tufts of white and black hairs intermixed near root of wings. *Scutellum* with two black bristles and white pubescence. *Scutellum* and *abdomen* shining blue-black or with purple reflections; on sides of second, third, and fourth abdominal segments is a silvery white spot; sides of abdomen with white hairs, in the ♀ they are black posteriorly; genital organs of ♂ prominent, in ♀ ovipositor pointed, sometimes visible and pointed, or covered by last segment; underside blackish. *Legs* black, the fore femora only yellow at base, sometimes only a mere spot at base or extending nearly halfway; middle and posterior pairs yellow for two-thirds of length, all somewhat swollen, but posterior pair more so than the others; the pubescence chiefly white and long; tibiæ with long black and white pubescence; tarsi with black pubescence and bristles. *Wings* hyaline, with a brown tinge round all veins, giving them a brown appearance; the first posterior cell is long and narrow, the small transverse vein being situated very near the base of discal cell, it is very slightly narrower at opening; fourth posterior cell closed some way from border of wing. Halteres yellow.

2 ♀ and 1 ♂ from Melbourne are identical but for the pubescence on the *legs*, which is chiefly black, not largely white as in the type, only pale-coloured on the light parts and black elsewhere.

Laphria fulviceps, Macquart.

In the description Australia is given with a query.

It is described as a black species with brown *wings*. *Antennæ* and *legs* fulvous.

Type is apparently lost.

Laphria ornatipennis, Macquart.

Type (♀) seen in Paris Museum, 12. 4. 11.

Moustache of stout black bristles, one or two yellow ones near mouth. Third joint of *antennæ* yellowish. *Scutellum* with long, black, fine bristles. Ovipositor with long yellowish hairs. No curved spines on fore tibiæ. *Wings* yellowish, with brown markings, situated at the apex, on discal, fourth and fifth posterior, and upper part of second basal cell; the apical marking does not extend beyond the base of fork of third vein, the second and third cells are only partially filled with brown, and the anal cell only in its upper half.

Macquart's figure of wing does not represent the brown colour very correctly.

In Brit. Mus. Coll. and Mr. French's Coll. male and female from Queensland.

A species easily recognized by the colouring of the *wings* yellow and brown and by the depressed, narrow, metallic bluish-black *abdomen*, with white lateral spots.

Length 17 mm.

The *wings* in these specimens are yellowish, the apex and posterior border brownish, the dark colouring extending to base of branch of third vein in a straight line from costal border to the posterior border to base of first posterior cell, continuing and occupying all the remaining posterior cells and most of the anal cell; base of wing nearly hyaline; the first posterior cell open, fourth closed, the small transverse vein on basal third of discal cell. The *scutellum* in male is armed with long bristles, yellow in the centre and black at the sides; in the female all are black. The ovipositor of female small, ending with long yellowish hairs. The third antennal joint in the female is wholly yellowish. The moustache in the male consists of golden, soft, long hairs.

Laphria niveifacies, Macquart.

♂. This species, placed under *Maira* in Kertész's Cat., is more probably a species of *Laphria*, judging from the description of the moustache.

The type is apparently lost, as it was not to be found in the Paris Museum.

Macquart describes it thus:—

Violet black. Abdomen with white hairs. Moustache black. Legs violet. Wings half brown.

Length, ♀, 4 lines.

Beard white. Face with snowy white tomentum; moustache black, covering half the face. Antennæ: the first two joints black, the third wanting. Thorax and abdomen with blue, violet, and green reflections; hairs on sides white. Legs violet, with white hairs and black spots; posterior femora incrassate; posterior tibiæ swollen and curved. Wings: the anterior half hyaline, the posterior half brownish; neuration normal.

From Tasmania. Paris Museum.

In the figure of *wing* the small transverse vein is below the middle of discal cell, the first posterior cell narrower at border, the fourth and anal cells closed.

Wulp described a female specimen from Sumatra which he thought might belong to this species, measuring 6.5 lines. He placed it under *Maira*, on account of the incrassate posterior femora and metallic colour of the *legs*. The *wings* were black-brown at the apex, extending into the basal cells, and the white hairs at sides of abdomen were not apparent.

Laphria flavifemorata, Macquart.

Type (♀) seen in Paris Museum, 12. 4. 11.

A small species, measuring only 9 mm., blue-black in colouring, with yellow femora.

Face fairly broad, with a large prominent tubercle. Moustache composed of black bristles. Beard white. *Thorax* with some whitish tomentum at the sides and long soft black hairs at sides, with shorter ones on the dorsum. *Scutellum* identical. *Abdomen* bare, shining, no white spots visible, with short black hairs at sides. Femora below with white hairs, hind pair a little incrassate; tibiæ with long black hairs. *Wings* hardly brown, as Macquart describes, clear, with black veins, the first posterior cell narrowed at border, the fourth and anal closed; the small transverse vein very near the base of discal cell, just above the base of the fourth posterior cell.

This is a very much smaller species than *Laphria telecles*, Wlk., with which I compared it.

Laphria calopogon, Bigot.

A male from Australia.

Described as black, with long grey pubescence below *abdomen* and femora and on both sides of tibiæ. The borders of the second, third, and fourth segments of *abdomen* fawn-coloured or testaceous. Femora at base and fore tibiæ at base with red spots. *Wings* blackish.

Laphria bancrofti, ♀, sp. n.

Type (♂) from Mackay, Queensland (G. Turner).

Type (♀) from S. Queensland (Bancroft), and other females.

A species nearly allied to *L. fulvipes* and *L. hirta*, sp. n., but distinct from both, the bluish-black *abdomen* being reddish yellow at the apex.

Length, ♀ 11, ♂ 17 mm.

Female.—*Face* black, with yellow tomentum; the moustache consists of long, weak, black hairs, with shorter whitish hairs above and below. *Palpi* with black pubescence. Beard white. Hind part of head with black pubescence. *Thorax* dull black, with yellow tomentose spots on shoulders, one on each side on centre of dorsum, and a yellow border round posterior half of thorax; pubescence black, yellow posteriorly, with four long, red (in the other female white), bristly hairs between the scutellum and base of wings. *Scutellum* black, covered with grey or fulvous tomentum and some yellow pubescence. *Abdomen* blue-black, shining, with yellowish-white tomentose spots on the second, third, and fourth segments, the sixth and seventh segments wholly reddish yellow; the ovipositor blackish, with yellow and black hairs. *Legs* black, the posterior femora swollen and yellow on their basal half, on the others only yellow at their base, tibiæ widely yellow on the basal half; pubescence of legs long, white, on the tarsi short and black. *Wings* brownish, paler at the base; neuration as in *L. ruffemorata*, with the exception of the first posterior cell, which is considerably narrowed at opening.

Male.—Identical, but the four long red bristles on *thorax* are replaced by three black ones. The spots on *abdomen* are not visible, and only the sixth segment is reddish yellow, and on the posterior border only; the genitalia are shining black and prominent; the middle and posterior femora are not yellow on their basal half.

Laphria fulvipes, ♀, sp. n.

Type (♀) and two others from Mackay, Queensland (G. Turner).

A small species with black legs, distinguished by the femora being yellow on their basal half and by the yellow tibiæ, which are black at their apices on the middle and anterior legs and on the posterior pair more widely so. From *L. hirta* it may be distinguished by the less pubescent *legs* and by the white spots on the dull black *abdomen*. The *face* has a black moustache, with long golden-yellow hairs above reaching to the antennæ; pubescence on forehead and

on hind part of head black. *Thorax* and *scutellum* dull black like the abdomen; the white tomentose spots on the latter appear on the first four segments at sides and have yellowish pubescence. *Legs* with black sparse pubescence. *Wings* with the neuration as in *L. rufifemorata*, but the first posterior cell is very considerably narrowed at opening. In all other particulars it is the same as *L. hirta*.

Length 12 mm.

Laphria hirta, ♂, sp. n.

A species with blue-black abdomen, but fulvous at sides instead of having white spots; legs very hairy, yellow, fore femora almost wholly black, the others black at apices; tibiæ black at apices, tarsi black.

Length 15 mm.

Type (♂) from Australia, 59. 10. 3.

Face covered with long, bright, fulvous hairs, the moustache appearing as long, black, isolated bristles on tubercle. *Palpi* with black hairs. Beard white. *Antennæ* with black hairs on first two joints. *Forehead* with black hairs, which extend over hind part of head, becoming white below. *Thorax* blue-black, with the usual white tomentose spots on shoulders and traces of a whitish border posteriorly and across suture. *Scutellum* blue-black, with black hairs. *Abdomen* blue-black, the fulvous colour appearing on side of each segment; pubescence on sides of abdomen fulvous; genital organs shining black, prominent; underside dull fulvous. *Legs* hairy, the coxæ black, with grey tomentum and some fulvous pubescence; the femora all swollen, and with tibiæ have long fulvous pubescence on the yellow parts, paler on the fore femora, and long black pubescence on the black parts, the tarsi with wholly black pubescence. Halteres red-brown. *Wings* brownish; neuration as in *Laphria rufifemorata*.

The species in the *Laphria* genus from New Guinea and other parts of the Australian Region are very numerous.

Of the Walker species, on an examination of the types the following remarks are based:—

L. ampla, from Amboyna, appears to be identical with *L. vulcanus*, Wied. *L. argentifera* and *L. conveniens* probably belong to the genus *Maira*.

L. declarata appears allied to the genus *Atomosia*.

L. aperta and *L. tripars*, from New Guinea and Waigiou, appear identical; they are very small in size; Dr. Hermann places the latter in his new genus *Cenochromyia* (see p. 117). *L. pipunculoides*, also a very small species, has a striking character in the eyes, which take up nearly the whole of the head and are joined in the middle; Dr. Hermann places it in the genus *Claviola* (see p. 113).

The following species are from Celebes :—

L. diotroides, a very small species with a very narrow face, bearing a general resemblance to a *Leptogaster* species; Dr. Hermann places it in *Cenochromyia*, but incorrectly, the fourth posterior cell being open.

L. partita appears to be a species of *Maira*.

Laphria disciplena, from New Guinea, is very probably the same as *Laphria doryca*. Boisduval, Voyage de 'l'Astrolabe,' Entom. ii. p. 662, pl. xiii. fig. 10 [*Dasygogon*] (1835), seen by me in the British Museum. The thorax is covered with bright fulvous tomentum; the antennæ, face, beard, and legs are the same colour; on the sides of thorax and breast a brown median stripe appears. Abdomen dull brownish red. Wings brown, with white streaks—one at apex, another between the first and second posterior cells, and smaller ones in the cells. *Laphria concludens*, Wilk., from Celebes, appears very nearly related, if not identical.

POGONOSOMA, Rondani.

Rond. Dipt. Ital. Prodr. i. p. 160 (1856).

No species are known from Australia itself. Two are recorded from Amboyna and Batjan I. by Doleschall and v. d. Wulp.

The genus is easily recognized by the presence of three cubital cells.

ASILINÆ.

The genera as yet recorded from Australia, Tasmania, and New Zealand are :—

Asilus, L.; *Ommatius*, Wied.; *Blepharotes*, Westwood; *Promachus*, *Erax*, *Proctacanthus*, Macq.; *Philodicus*, *Cerdistus*, *Neoitamus*, Loew; *Glaphyropyga*, Schiner; *Dysmachus*, Wilk.; *Heligmoneura*, Bigot; *Neoratus*, Ricardo (*Aratus*, Wulp); and *Pararatus*, gen. nov.

From other parts of the Australasian Region occur species belonging to the genera *Pamponerus*, Loew; *Allocotosia* and *Emphysomera*, Schiner.

Table of Genera.

1. Style of antennæ feathered	2.	
Style of antennæ bare	4.	
2. Third joint of antennæ always considerably longer than the first two joints together.		<i>Allocotosia</i> , Schiner.
Third joint of antennæ short, usually shorter than the first two joints together	3.	
3. Face with a tubercle		<i>Ommatius</i> , Wied.
Face quite flat, with no tubercle		<i>Emphysomera</i> , Schiner.
4. Abdomen extremely broad, depressed, with tufts of hairs at sides. Ovipositor short, not compressed		<i>Blepharotes</i> , Westwood.
Abdomen not extremely broad	5.	

- | | | |
|--|----|------------------------------|
| 5. Wings with three submarginal cells | 6. | |
| Wings with two submarginal cells | 7. | |
| 6. Second submarginal cell at most half as long as the first submarginal cell | | <i>Promachus</i> , Loew. |
| Second submarginal cell as long or only a little shorter than the first submarginal cell | | <i>Philodicus</i> , Wlk. |
| 7. Posterior branch of third vein curves forward to meet the costa at or before the tip of wing; an appendix sometimes present | 8. | |
| Posterior branch of third vein terminates beyond the tip of wing; no appendix | 9. | |
| 8. Ovipositor cylindrical, with a terminal circlet of spines | | <i>Proctacanthus</i> , Macq. |
| Ovipositor laterally compressed, without a terminal circlet of spines | | <i>Erax</i> , Scop. |

Subgenera of Asilus.

- | | | |
|--|-----|--------------------------------|
| 9. Ovipositor laterally compressed | 10. | |
| Ovipositor conical | 17. | |
| 10. Third joint of antennæ unusually long and broad, flattened | | <i>Glaphyropyga</i> , Schiner. |
| Third joint of antennæ normal shape, if long always very long | 11. | |
| 11. End lamellæ of ovipositor egg-shaped, wedged in; thorax with bristles disposed like a mane | | <i>Dysmachus</i> , Wlk. |
| End lamellæ of ovipositor free, style-like; thorax with bristles not disposed like a mane | 12. | |
| 12. Posterior border of eighth ventral segment in male more or less widened. Ovipositor in female not so long as in <i>Neoitamus</i> | | <i>Machinus</i> , Loew. |
| Posterior border of eighth ventral segment in male not widened | 13. | |
| 13. Legs prevailing shining yellow | | <i>Heligmoneura</i> , Bigot. |
| Legs prevailing black or light and opaque-coloured | 14. | |
| 14. Male genitalia club-like; ovipositor long, including the sixth and seventh segments. Male genitalia not club-like; sixth and seventh segments not included in ovipositor | 15. | |
| | 16. | |
| 15. Large species; third posterior cell very wide. Tibiæ black | | <i>Pararatus</i> , gen. nov. |
| Small species; third posterior cell not very wide. Tibiæ usually testaceous | | <i>Neoitamus</i> , Ost.-Sack. |
| 16. Face with a very small tubercle. Legs mainly black | | <i>Cerdistus</i> , Loew. |
| 17. Large species; wing very much curved outwards at costal border in the male | | <i>Neoaratus</i> , Ricardo. |
| Wing not (or hardly) curved outwards at costal border in male | 18. | |
| 18. Abdomen with no bristles before the segmentations; large or middle-sized, usually bright-coloured species | 19. | |

19. Abdomen with short close pubescence, nearly bare. Wings not white at base. *Asilus*, Linn.
 Abdomen with long fine outstanding pubescence. Wings usually white or pale at base *Pamponerus*, Loew.

ALLOCOTOSIA, Schiner.

Verh. zool.-bot. Ges. Wien, xvi. p. 845 (1866).

No species have been recorded in this genus from the Australian Region with the exception of three species from Celebes, viz. :—

Allocotosia aurata, Fabr., *scitula*, Wlk., and *vulpina*, Bigot ; the Walker species has also been recorded by Schiner from Amboyna.

EMPHYSOMERA, Schiner.

Verh. zool.-bot. Ges. Wien, xvi. p. 845 (1866).

The only species as yet recorded from the Australasian Region are *E. nigra*, Schiner, Novara Reise, Dipt. p. 195 (1868), from Gilolo ; *E. peregrina*, v. d. Wulp, Tijds. v. Entom. (2) vii. (xv.) p. 253 (1872), from Ternate ; and *E. spathulata*, Dol., Nat. Tijds. Nederl. Ind. (4) iii. xvii. p. 89 (*Ommatius*) (1858), from Amboyna.

Walker's species *Ommatius platymelas* is the same as *E. spathulata*. *Ommatius invehens* and *bacchoides*, Walker, both belong to this genus from I. Waigion and Ceram ; the latter type, a male, has the wing dilated on fore border as in *E. peregrina*.

The genus is easily distinguished by the flat face and club-shaped abdomen.

OMMATIUS, Wiedemann.

Dipt. Exot. p. 213 (1821).

The following species are recorded from Australia and Tasmania :—

- Ommatius chinensis*, Fabr., Ent. Syst. iv. p. 383 [*Asilus*] (1794). For other references and synonyms see Kertész, Cat. Dipt. 1909.
Ommatius angustiventris, Macq., Dipt. Exot. Suppl. iv. p. 293, pl. viii. fig. 10 (1849) ; Schiner, Verh. zool.-bot. Ges. Wien, xviii. p. 410 (1867).—*Ommatius corcebus*, Wlk., List Dipt. ii. pp. 473 et 759.
Ommatius lema, Wlk., List Dipt. ii. p. 472 (1849), et vii. Suppl. 3, p. 759 (1855).
Ommatius dimidiatus, Macq., Dipt. Exot. Suppl. iv. p. 394, pl. viii. fig. 11 (1849).
Ommatius vitticrus, Bigot, Ann. Soc. Ent. France, (5) vi. Bull. lxxxv. 2 (1876).
Ommatius mackayi, sp. n.
Ommatius queenslandi, sp. n.

Ommatius chinensis, Fabricius.

For synonyms see Kertész, Cat. 1909, p. 306.

A male and female from Burpengary, Queensland (*Dr. Bancroft*), answer to the description of the above species, which is recorded from China, Japan, Corea, Java, Sumatra, &c., but not as yet from the Australasian Region. The above specimens are identical with others in the Brit. Mus. Coll. from Amboyna, only differing in the colour of the bristles on the femora, which are chiefly white instead of black.

It is a large robust yellowish species, with black *legs*, the tibiæ reddish yellow. *Face* with yellow hairs, moustache and beard the same colour.

Ommatius angustiventris, Macquart.

Ommatius coræbus, Wlk.

Macquart's type a male seen by me in Paris Museum, 12. 4. 11. A specimen of *O. coræbus*, Wlk. (from Vigers Coll.), is identical with it, the moustache more white than yellow, and the bristles on the hind femora all black, whereas in the Macquart type some are white.

Walker's types, male and female, from unknown locality (Hardwicke Bequest).

This is a black species with yellow tibiæ; the *wings* dilated in the male.

Macquart's description is as follows:—

Black. Thorax with golden stripes. Abdomen narrow, with ashy-grey subpubescence. Moustache yellow; tibiæ red. Wings dilated. Length 9 lines, ♂. Palpi with yellowish hairs. Beard yellowish white. Face not very prominent, rather narrow, golden yellow; moustache yellow, only reaching halfway up the face. Forehead rather narrow; anteriorly golden yellow, the rest black. Antennæ close together, black. Eyes with green reflections. Thorax: the spaces between the black stripes as well as the sutures a bright golden yellow; the intermediate stripe divided longitudinally by a brownish testaceous stripe; sides yellowish white; scutellum ashy grey. Abdomen narrow, black, with slight grey tomentum and short white hairs scattered on sides and segmentations; genital organs in male small, consisting only of two claspers horizontally opposite each other, shining black. Legs black, with short yellowish hairs and black bristles; tibiæ pale yellow, the anterior pair with no spines, the intermediate and posterior ones black at apex. Wings hyaline, grey on fore border and at apex; the outer border abruptly dilated; stigma testaceous.

From east coast of New South Wales. Paris Museum.

Ommatius lema, Walker.

Type (♀) from New South Wales (Haslar Hospital).

A blackish species; the tibiæ dull yellowish red on their outer borders, femora incrassate. Moustache yellow. *Wings* pale brownish.

Length 18 mm.

Face blackish, with grey tomentum. Moustache composed of long yellowish hairs and about seven long black bristles, four above the oral opening and three near antennæ. *Palpi* brown, with long whitish hairs. Beard yellowish. *Antennæ* black. *Thorax* black, with grey tomentum on shoulders and at sides, and as faint stripes on dorsum; two short black bristles above root of wings and two beyond, and numerous weaker ones on posterior part of dorsum. *Scutellum* with two black ones on its border. *Abdomen* blackish, a few black hairs at anus. *Legs* black; coxæ covered with grey tomentum; fore tibiæ obscurely reddish, the others only yellowish red on their outer borders; posterior and middle femora armed below with four black bristles; fore femora with whitish pubescence below. *Wings* pale brownish, nearly clear on posterior border, the small transverse vein placed on the apical third of discal cell; fourth posterior cell with a short stalk.

The type from which this description is taken is in a dirty faded condition. It is distinguished from *O. angustiventris* by the incrassate femora, armed with four, not two, bristles, and by the less highly coloured tibiæ.

Ommatius dimidiatus, Macquart.

Type apparently lost; not to be found in the Paris Museum.

A female in the Brit. Mus. Coll. from N. Queensland is probably nearly allied to this species.

Macquart describes it as follows:—

Black. Legs red, femora above and the tibiæ below black. Length 4 lines, ♀.

Palpi with black hairs. *Face* shining black, with a little grey tomentum; moustache composed of black and yellowish bristles. *Antennæ* black. *Thorax* with indistinct grey stripes. *Abdomen* with slight grey tomentum. *Tarsi* black; the first joint yellow, black at apex. *Wings* clear, the discal cell with a long stalk.

From Tasmania. Paris Museum.

Ommatius vitticrus, ♀, Bigot.

Described as dull brown. *Face*, beard, and moustache

grey, the latter with black bristles above. *Abdomen* with grey pubescence. *Wings* pale smoky. *Legs* testaceous, femora and tibiæ with a black stripe on outer border.

Length 15 mm.

Ommatius mackayi, sp. n.

Type (♂ ♀) from Mackay, Queensland (G. Turner, 1894).

A handsome yellowish species, with well-marked blackish stripes on *thorax*. *Legs* black, femora at base and tibiæ wholly yellow. *Wings* hyaline, in male dilated.

Length, ♂ 26, ♀ 20 mm.

Male.—*Face* blackish, with silvery white tomentum; tubercle not very prominent. Moustache reaching to quite the middle of face, which narrows considerably above, composed of long bristly white hairs, four long yellowish bristles conspicuous above. *Palpi* small. Beard white. *Antennæ* brownish, with the usual long feathered bristle. *Forehead* yellower than face; ocelligerous tubercle large, brown, with some yellowish bristles. Head much excised behind, the hairs at back yellowish. *Thorax* covered with bright fulvous tomentum, lighter on the shoulders, and marked with two central narrow black stripes and with shortened side-stripes; a few short black bristles appear in centre of dorsum anteriorly and some long fulvous hairs posteriorly; sides with pale yellow hairs and two strong black bristles above base of wing, two more below; breast-sides brownish, with white tomentum. *Scutellum* fulvous, bordered with some yellowish hairs.

Abdomen brownish, with bright fulvous tomentum on the first two segments; all segments with short, fairly thick, fulvous pubescence. Genital organs very prominent, blackish, sides with yellowish hairs, a tuft of long fulvous hairs on the first segment. *Legs* black, the coxæ covered with grey tomentum, the fore pair with long white hairs; the femora yellow below, the hind femora yellow at base; tibiæ yellow, hind pair black at apex; tarsi yellow on the first joint of fore and mid pair; pubescence of legs yellowish, bristles black. *Wings* much dilated on costal border, strongly rilled in the marginal and submarginal cells and less so in the first and second posterior cells; the small transverse vein beyond the middle of discal cell; veins brown.

Female identical; the stout bristles in moustache are darker in colour, hairs at back of head black and bristly, the bristles below base of wings are more in number. *Wings* not dilated and hardly rilled.

Ommatius queenslandi, sp. n.

Type (♂ ♀) from Stanuary Hills, N. Queensland (Dr. T. L. Bancroft, 1909).

A small black species; *abdomen* with some grey tomentose spots. *Legs* black, *tibiæ* yellowish. *Wings* clear, not dilated in the male.

Length, ♂ 9, ♀ 14 mm.

Male.—*Face* brownish, with yellowish-grey tomentum. Moustache composed of long, yellow, bristly hairs. Tubercle not very prominent, but reaching to antennæ. Beard silvery white. *Antennæ* black, with long feathered bristle. *Fore-head* reddish brown, with black pubescence. Back of head with black hairs curved inwards. *Thorax* blackish brown, with grey tomentum on shoulders and at sides, on middle suture, and on posterior part of thorax; on this last appear numerous black bristles and white pubescence; some black pubescence on dorsum; sides with whitish hairs and two stout black bristles above base of wings; breast-sides covered with ashy-grey tomentum. *Scutellum* covered with grey tomentum, with yellowish hairs on border. *Abdomen* blackish brown, with grey tomentose side spots and very scattered grey pubescence; genital organs not very prominent, black hairs on last segments. *Legs* black; *tibiæ* yellow below, posterior pair yellow at base; femora with white pubescence and bristles black, which, however, are yellow on posterior incrassate pair; *tibiæ* with black bristles and yellow or whitish hairs. *Wings* hyaline; veins brown, small transverse vein beyond the middle of discal cell; cells anteriorly rilled.

Female identical. *Abdomen* with incisions of some segments ashy-grey tomentose; the grey pubescence is white and more abundant.

The following species have been recorded from New Guinea and other parts of the Australasian Region:—

Ommatius annulatus, cnemideus, Bigot; *aruensis, excurrans, fulvimanus, infernus, schlegelii, serenus, suffusus*, Wulp; *minimus, minor*, Dol.; *canus, discalis, lucifer, nanus, retrahens*, Walker. Of these last, *canus, nanus, retrahens* (and also *strictus* from Celebes) have no tubercle on face, but the abdomen is not club-shaped as in *Emphysomera*; the type of *discalis* appears to be missing.

[To be continued.]